background section above. In the case that the generator 15 is an AC generator, a rectifier 67 may be required between the generator 15 and the control mechanism 19.

Please amend the paragraph beginning on page 11, line 17 to read as follows:

Fig. 1d shows a different embodiment of the present invention. An engine 11 is connected via a shaft to a direct current (DC) generator 15. The excitation of the DC generator is controlled by generator excitation controller 39. The generator is connected with electrical connecting wiring 17 to an energy storage unit 21. The energy storage unit 21 is connected to an electrical load 22, with a controller 29 electrically connected between them load for supplying power to the electrical load 22 at substantially the electrical requirements of the electrical load 22. In related embodiments, the generator is an AC generator with adjustable excitation, in which case a rectifier 67 would need to be added electrically between the generator 15 and the energy storage unit 21.

Please amend the paragraph beginning on page 15, line 1 to read as follows:

The heat engine is directly coupled to the generator, via a mechanical means, such as a shaft, or gearing or other speed changing apparatus. Gearing or other speed changing apparatus 82 is shown in Fig. 1h. The generator converts mechanical power into electrical power, and driving an output current through a load. The torque/speed relation of the generator is electronically controlled, either by direct control of generator excitation, or by control of load voltage/current or load frequency characteristics.Through control of the torque/speed characteristics of the generator, control of the system's rotational velocity is effected without the use of a throttle. The heat engine is operated at wide open throttle, with power variation being achieved through changes in rotational velocity.

Please amend the paragraph beginning on page 20, line 15 to read as follows:

The generator torque load may be increased by increasing the output current supplied to the load. This may be accomplished by a decrease in the resistance of the load on the generator. More current flows through the lower resistance, and causes the torque load of the generator to be immediately increased. The torque of the system is no longer in equilibrium, the torque of the engine being lower than the torque load of the generator. The speed of the engine decreases, and

with it, the engine torque changes according to its torque speed characteristics. When the required engine power output, determined by the product of engine torque and speed, is reached, the load resistance is increased to reduce the generator torque load and restore engine/generator torque equilibrium. Since there is again equilibrium between torque and torque load, the system stops decelerating. At this point the engine is running at a lower speed and with an appropriate torque to maintain that speed and the generator's decreased power requirement is being met. A slightly different method is to decrease the load resistance, and to let the engine/generator system come to equilibrium with the new load resistance. As the engine/generator system slows down, the generator voltage automatically decreases, thus, decreasing the current flow through the resistive load. As the generator torque comes into equilibrium with the engine torque, the system speed will cease to change.

Please amend the paragraph beginning on page 24, line 12 to read as follows:

It is possible to adjust the synchronous speed to achieve the desired change in a single step. However, large changes in synchronous speed could result in non-desired results. The torque/speed curves have maxima, and the trending in both directions towards equilibria only happens if the torque load is below the generator side maximum. Beyond that point, if the generator torque load is greater than the engine torque, the system may slow down towards equilibrium, but should the generator torque load be lower than the engine torque, then the system will accelerate and continue to do so. Therefore, when the system is to be sped up by a large amount, it may be necessary to change the generator torque load in stages, to produce a slower and more gradual change.

Please amend the paragraph beginning on page 26, line 12 to read as follows:

The power electronic control 19 synthesizes alternating current at 200 radians per second, again as suitable voltage. The generator 15 is now operating on a new torque/speed curve, and at the current system speed of 100 radians per second will operate as a motor. This is analogous to Fig. 2b. The combination of engine 11 and generator 15 torques act to accelerate the system to approximately 208 radians per second. At this point, equilibrium will obtain with a power output of about 42 kW. During the initial acceleration phase, the system is actually absorbing power as